FIG. 1

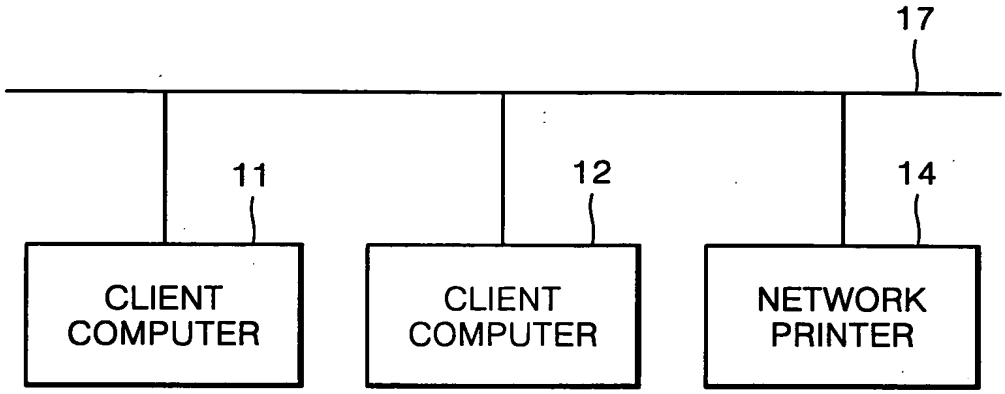

17
11
12
14
CLIENT COMPUTER
CLIENT COMPUTER
NETWORK PRINTER

FIG. 2

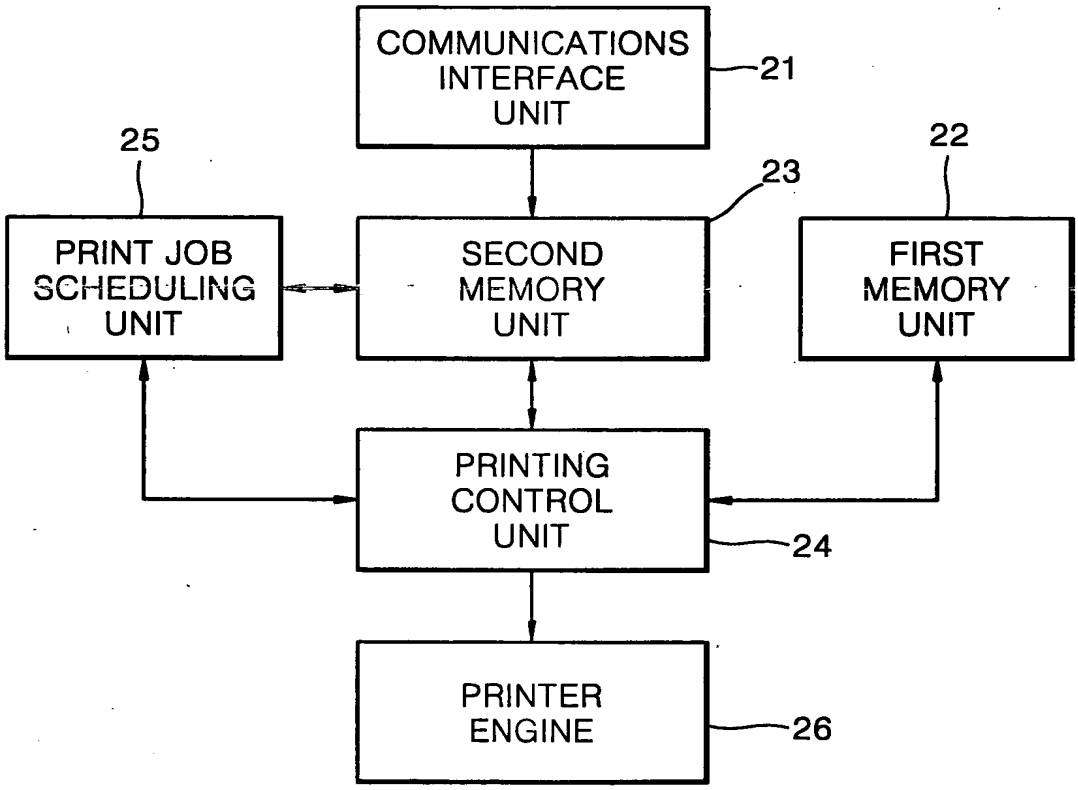

COMMUNICATIONS INTERFACE UNIT
21
25
22
23
PRINT JOB SCHEDULING UNIT
SECOND MEMORY UNIT
FIRST MEMORY UNIT
PRINTING CONTROL UNIT
24
PRINTER ENGINE
26

FIG. 3

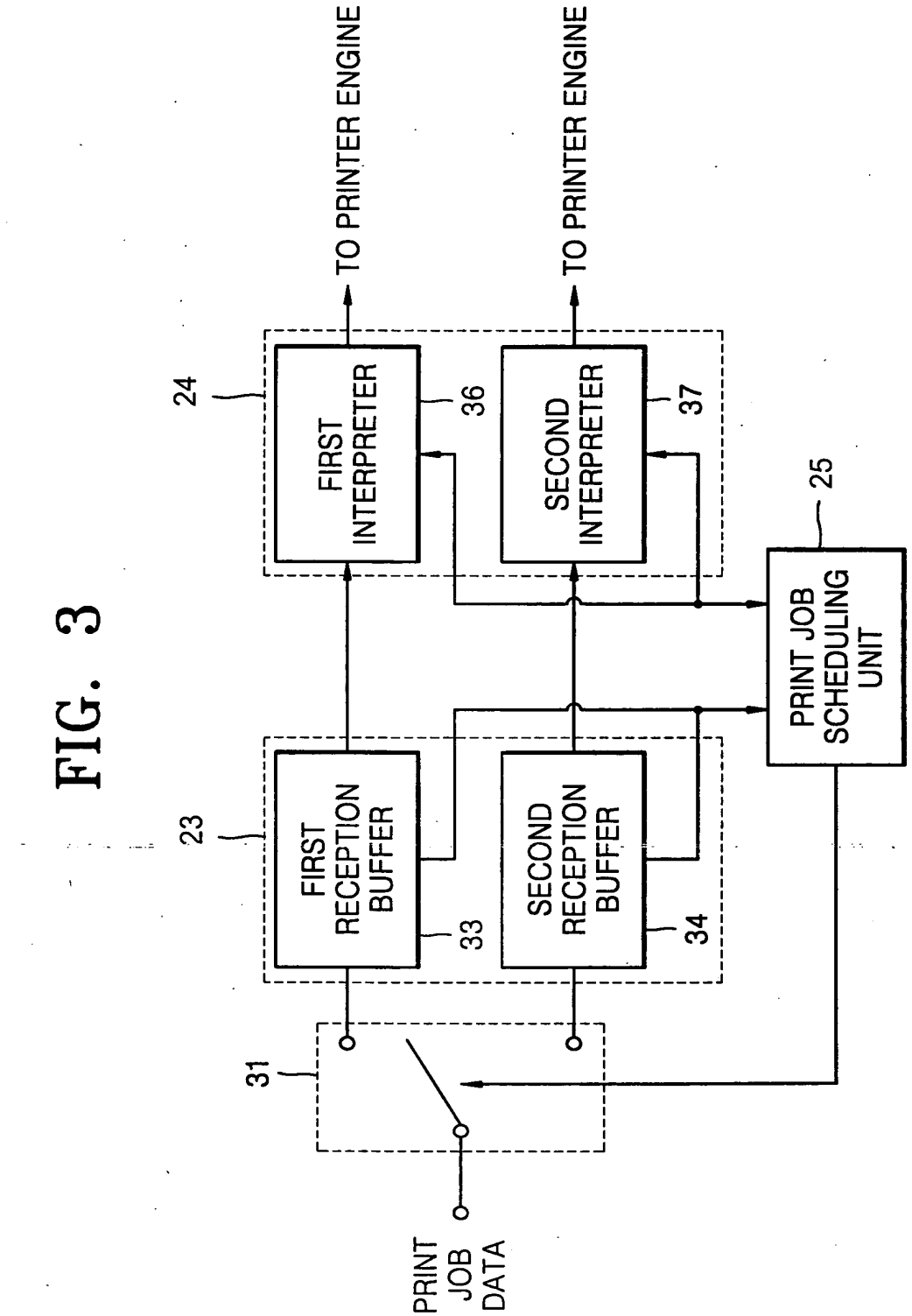

PRINT JOB DATA
31
FIRST RECEPTION BUFFER
33
SECOND RECEPTION BUFFER
34
23
FIRST INTERPRETER
36
SECOND INTERPRETER
37
24
PRINT JOB SCHEDULING UNIT
25
TO PRINTER ENGINE
TO PRINTER ENGINE

FIG. 4

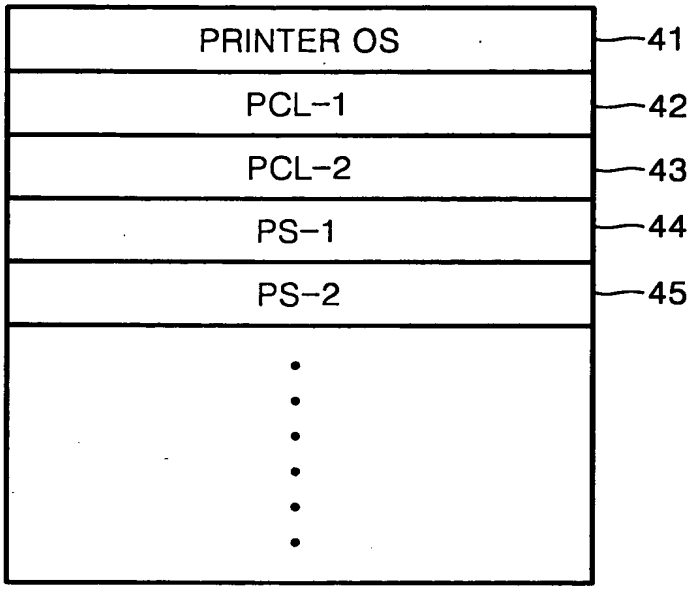

PRINTER OS
41
PCL-1
42
PCL-2
43
PS-1
44
PS-2
45

FIG. 5

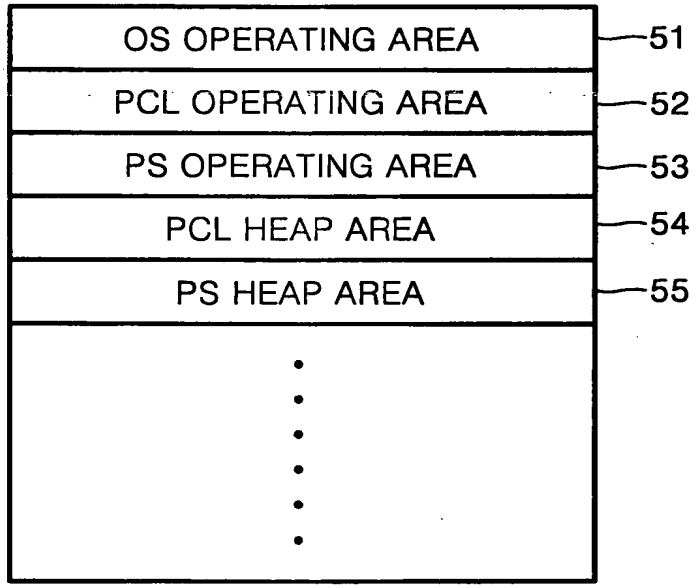

OS OPERATING AREA
51
PCL OPERATING AREA
52
PS OPERATING AREA
53
PCL HEAP AREA
54
PS HEAP AREA
55

FIG. 6

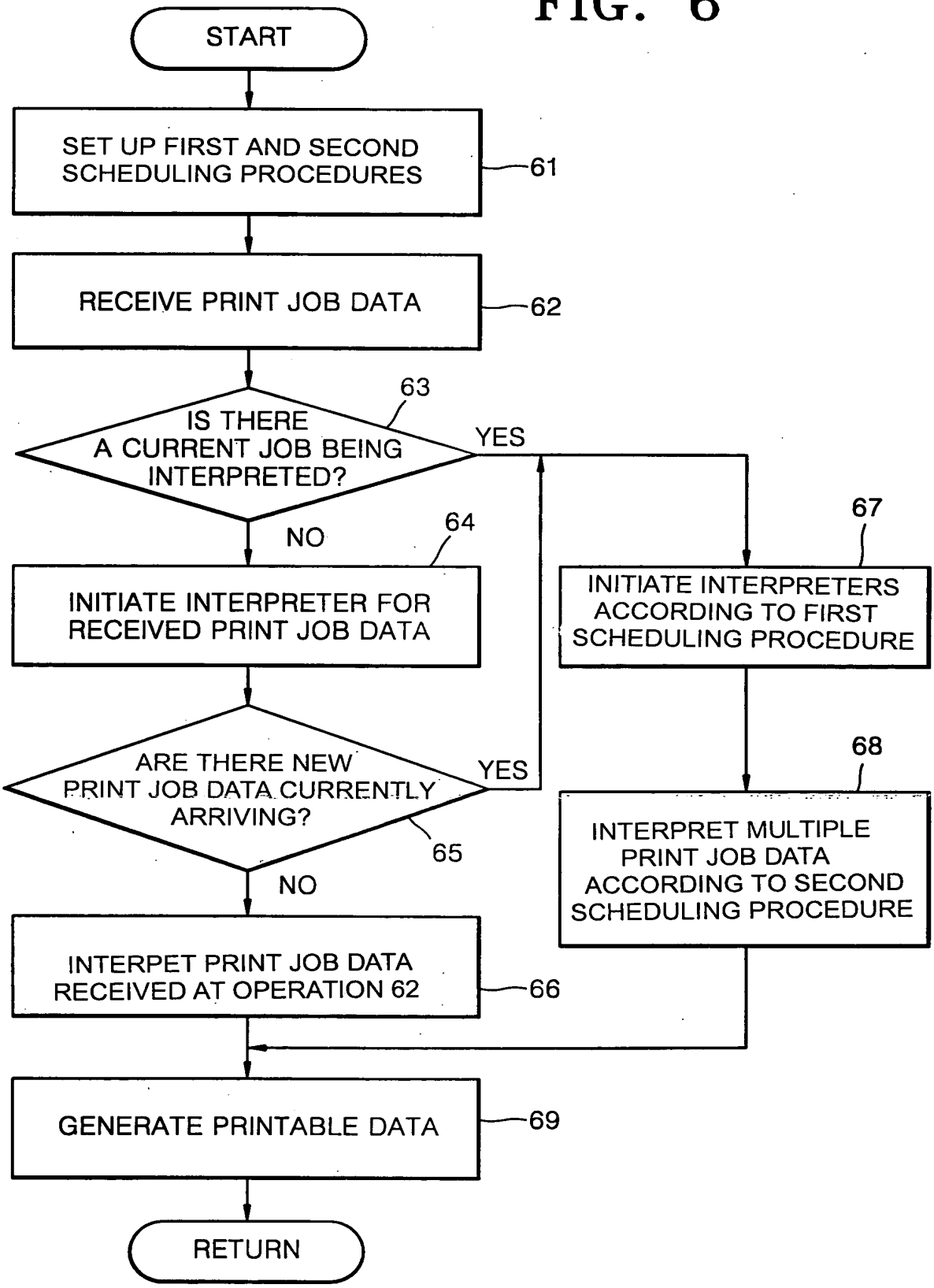

START
SET UP FIRST AND SECOND SCHEDULING PROCEDURES
61
RECEIVE PRINT JOB DATA
62
63
IS THERE A CURRENT JOB BEING INTERPRETED?
YES
NO
64
INITIATE INTERPRETER FOR RECEIVED PRINT JOB DATA
67
INITIATE INTERPRETERS ACCORDING TO FIRST SCHEDULING PROCEDURE
ARE THERE NEW PRINT JOB DATA CURRENTLY ARRIVING?
YES
65
NO
68
INTERPRET MULTIPLE PRINT JOB DATA ACCORDING TO SECOND SCHEDULING PROCEDURE
INTERPET PRINT JOB DATA RECEIVED AT OPERATION 62
66
GENERATE PRINTABLE DATA
69
RETURN

FIG. 7

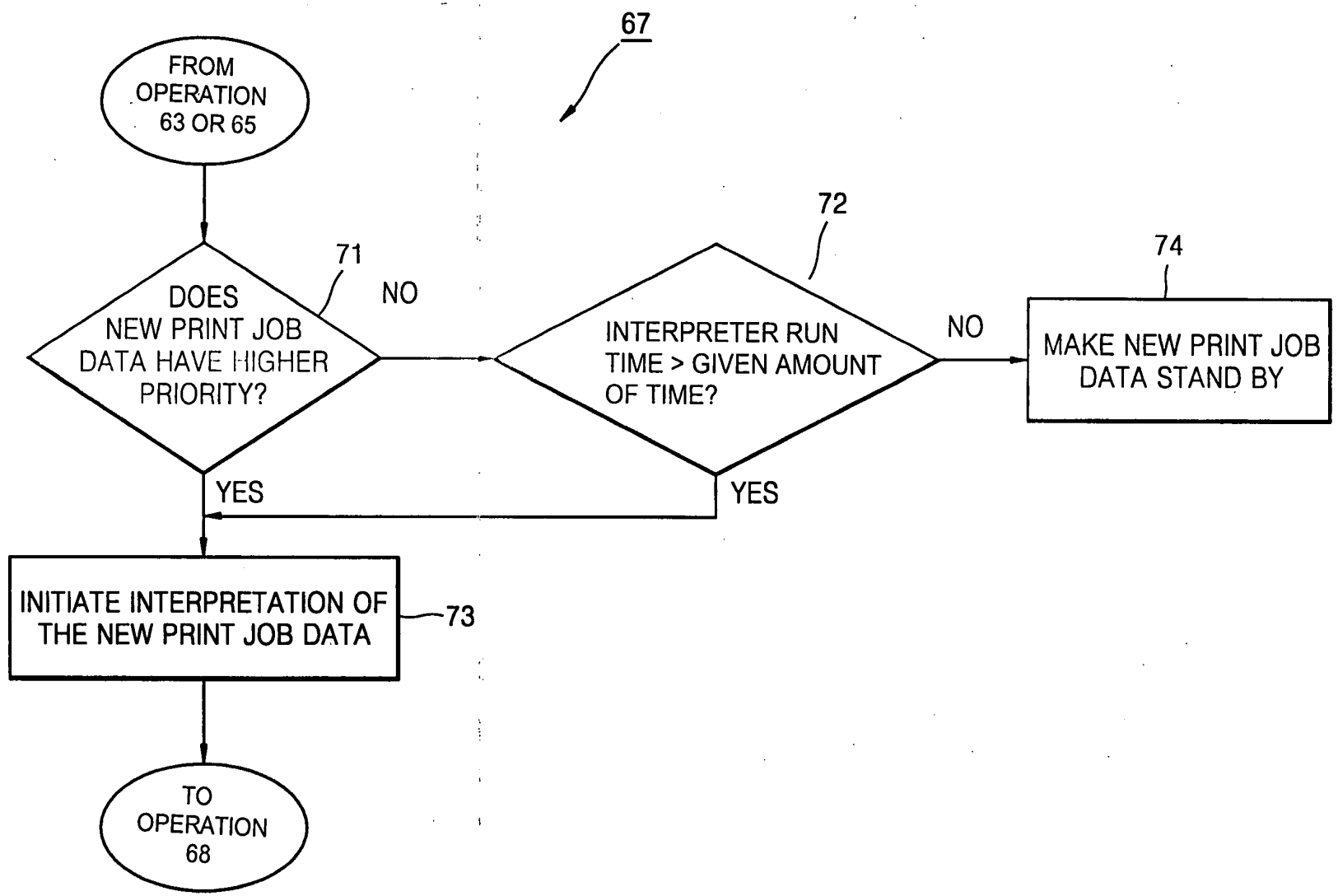
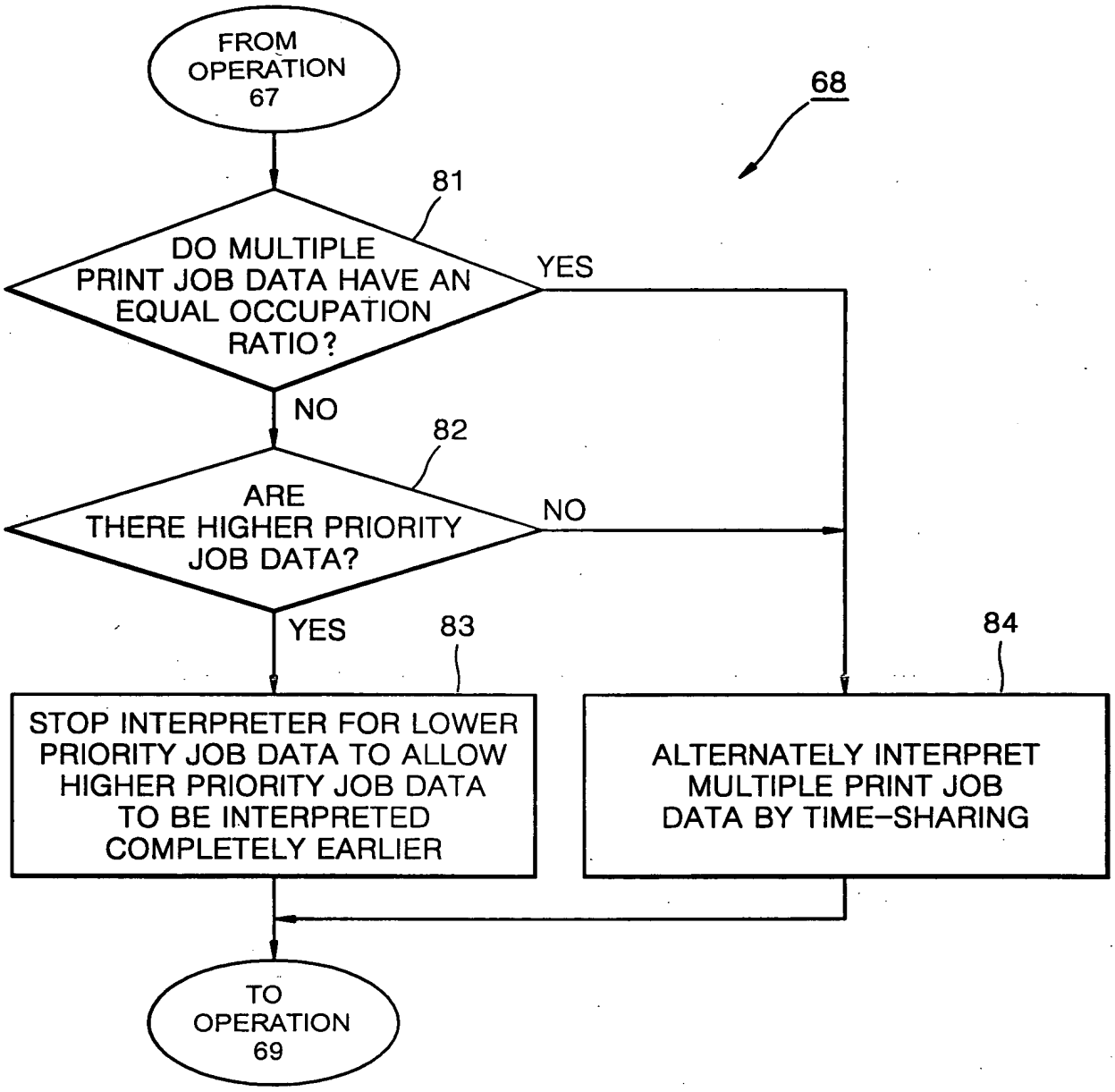

67
FROM OPERATION 63 OR 65
71
DOES NEW PRINT JOB DATA HAVE HIGHER PRIORITY?
NO
72
INTERPRETER RUN TIME > GIVEN AMOUNT OF TIME?
NO
74
MAKE NEW PRINT JOB DATA STAND BY
YES
YES
INITIATE INTERPRETATION OF THE NEW PRINT JOB DATA
73
TO OPERATION 68

FIG. 8


FROM OPERATION 67
68
81
DO MULTIPLE PRINT JOB DATA HAVE AN EQUAL OCCUPATION RATIO?
YES
NO
82
ARE THERE HIGHER PRIORITY JOB DATA?
NO
YES
83
84
STOP INTERPRETER FOR LOWER PRIORITY JOB DATA TO ALLOW HIGHER PRIORITY JOB DATA TO BE INTERPRETED COMPLETELY EARLIER
ALTERNATELY INTERPRET MULTIPLE PRINT JOB DATA BY TIME-SHARING
TO OPERATION 69